

**REMARKS**

Applicants wish to thank Examiner Mazumdar for the helpful discussion on October 17, 2006. Amendments for Claims 9 and 18 were discussed.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

Applicants submit herewith a Certified English translation of the Japanese priority document JP 2000-148816, filed May 19, 2000, thereby perfecting their claim to priority. Thus, Iijima is no longer available as prior art reference and the rejection over Iijima should be withdrawn.

The present invention as set forth in **amended Claim 9** relates to a method for producing functional film, comprising:

applying a coating liquid having functional microparticulates dispersed therein onto a support, thereby forming a microparticulate-containing coating,

drying the microparticulate-containing coating,

**compressing the microparticulate-containing coating at a temperature of 15 to 40°C, thereby forming a functional film comprising a compressed microparticulate-containing layer, and**

**transferring the functional film onto another support;**

wherein the compressed microparticulate-containing layer does not have cracks and is capable of being drawn 10% without forming cracks; and

**wherein the compressed microparticulate-containing layer does not comprise a resin as a binder.**

The present invention as set forth in **amended Claim 18** relates to a method for producing a functional film, comprising:

applying a coating liquid having functional microparticulates dispersed therein onto a support, thereby forming a microparticulate-containing coating,

drying the microparticulate-containing coating,

**compressing the microparticulate-containing coating at a temperature of 15 to 40°C thereby forming a functional film comprising a compressed microparticulate-containing layer, and**

**transferring the functional film onto another support;**

wherein the compressed microparticulate-containing layer is capable of being drawn 10% and in a 10% drawn state exhibits a surface resistivity which is at most 10 times greater than the surface resistivity prior to drawing; and

**wherein the compressed microparticulate-containing layer does not comprise a resin as a binder.**

Oka et al and Kawachi et al fail to disclose or suggest a methods for producing functional film as claimed in Claims 9 and 18.

**One feature of each of the present Claims 9 and 18 lies in that the microparticulate-containing coating does not comprise a resin as a binder.**

Thus, since no resin is present in spaces between microparticulates, it is possible to fully compress the microparticulate-containing coating, thereby markedly increasing the packing density of microparticulates in the microparticulate-containing coating.

To the contrary, in the case where a microparticulate-containing coating comprises a resin as a binder, since a resin is present in spaces between microparticulates, it is almost impossible to fully compress the microparticulate-containing coating.

Although the Examiner states that Oka teaches forming an antireflection layer, where a functional coating dispersion, comprising particles such as titanium oxide or ITO but no

resin, is applied to a release film, Oka does not disclose that the functional coating dispersion contains no resin.

Further, Oka teaches that the microparticulate-containing coating 2 (functional ultrafine particle layer 2) formed on a release film 1 is pressed so that part of functional ultrafine particles 5 can be embedded in the resin composition coating for a hard coat layer 4.

More specifically, the microparticulate-containing coating 2 (functional ultrafine particle layer 2) formed on a release film 1 is press-bonded onto a hard coat layer 4 provided on a transparent plastic substrate film 3, thereby causing part of functional ultrafine particles 5 to be embedded in the resin composition coating for a hard coat layer 4 (See Abstract, Figure 3 and column 8, line 19 to column 9, line 18 of Oka).

Therefore, spaces between microparticulates (functional ultrafine particles) are filled with resin, it is impossible to fully compress the microparticulate-containing coating (functional ultrafine particle layer 2), thereby markedly increasing the packing density of microparticulates in the microparticulate-containing coating.

Further, in Figure 4 of Oka, a microparticulate-containing coating 2 (functional ultrafine particle layer 2) is formed on a release film 1 and the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is coated with a resin composition for a hard coat layer 4, thereby causing the functional ultrafine particles to be entirely or partly embedded in the resin composition coating for a hard coat layer 4, and full curing the coating to form a hard coat layer 4. The release film 1 with the hard coat layer 4 is laminated onto a transparent plastic substrate film 3 via an adhesive layer 6 and the release film 1 is then peeled off (See column 9, line 19 to column 10, line 13).

Therefore, the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is not compressed in Figure 4 of Oka.

Furthermore, the process shown in Figure 5 of Oka is identical to the process shown in Figure 4 except that the release film 1 with the hard coat layer 4 is directly laminated onto a transparent plastic substrate film 3.

Therefore, the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is not compressed in Figure 5 of Oka.

A process shown in Figure 6 of Oka is identical to the process shown in Figure 3 except that a resin having a low surface tension or functional ultrafine particles having a small particle diameter, which can provide a high filling ratio are selected.

In view of the above, in Oka, since spaces between microparticulates (functional ultrafine particles) are filled with resin when the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is compressed, it is impossible to fully compress the microparticulate-containing coating (functional ultrafine particle layer 2), thereby markedly increasing the packing density of microparticulates in the microparticulate-containing coating.

**Another feature each of the present Claims 9 and 18 lies in that the microparticulate-containing coating is compressed prior to transferring the microparticulate-containing coating (functional film) onto another support.**

Thus, since any other layer than the support on which the microparticulate-containing coating is formed is not present when the microparticulate-containing coating is compressed and the microparticulate-containing coating can be directly compressed, the microparticulate-containing coating can be more fully compressed so that the packing density of microparticulates in the microparticulate-containing coating can be sufficiently increased.

To the contrary, in the case where a microparticulate-containing coating is compressed after it is transferred onto another support, since the support onto which the microparticulate-containing coating is transferred, an adhesive layer and the like are present when the microparticulate-containing coating is compressed and the microparticulate-

containing coating cannot be directly compressed, it is difficult to fully compress the microparticulate-containing coating so that the packing density of microparticulates in the microparticulate-containing coating can be sufficiently increased.

Therefore, in Oka, since the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is compressed after the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is coated with a resin composition for a hard coat layer 4, when the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is to be compressed, only spaces between microparticulates (functional ultrafine particles) are filled with resin and the microparticulate-containing coating 2 (functional ultrafine particle layer 2) is hardly compressed.

Further, although the Examiner asserts that the coated release film is then press-bonded onto a resin-coated substrate at 40°C and the release film is removed (column 9, line 52 to column 10, line 5; column 55, line 4), Oka states that the laminate was aged at 40°C (column 55, line 4) and the temperature 40°C is not a compression temperature but an aging temperature.

In view of the above, since Oka neither discloses nor suggests the key features of the present Claims 9 and 18 and the process disclosed in Oka is essentially different from the claimed process defined in each of the present Claims 9 and 18, it is clear that the present Claims 9 and 18 are not anticipated by Oka.

Further, while Kawachi discloses a 90° peel test, the process disclosed in Kawachi is essentially different from the claimed process defined in each of the present Claims 9 and 18.

Further, as stated above, since the process of Oka is essentially different from the claimed process defined in each of the present Claims 9 and 18, even if Kawachi is combined with Oka, it is impossible to obtain the present Claims 10 and 19.

Application No.: 10/614,518  
Reply to Office Action of: July 10, 2006

Therefore, the rejections of the claims over Oka et al and Kawachi et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 9 and 18 as being indefinite is obviated by the amendment of these claims.


In regard to the Examiner's request to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made, Applicants' Representative is confirming with the Applicants that all claims were and are commonly owned. Applicants' Representative will update the Examiner in the event that the claims are not commonly owned.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.  
Norman F. Oblon

Customer Number  
**22850**

  
Kirsten A. Grueneberg, Ph.D.  
Registration No.: 47,297